

HAVING NOW described our invention, what we claim as new and desire to secure by Letters Patent is:

1. A trenching machine comprising:
  - 5 a wheeled frame,
  - a first motor means mounted on the frame,
  - the first motor means driving a digging chain carried on a chain guide extending from the machine,
  - the chain guide being pivotally mounted coaxially with a drive chain drive
  - 10 sprocket,
  - means for pivotally moving the chain guide relative to the frame,
  - locking means to lock the chain guide in a desired pivotal position, and
  - a second motor means mounted on the frame,
  - the second motor means driving at least one of the machine wheels for
  - 15 moving the machine along the ground,
  - wherein the second motor means is releasably engaged to the at least one of the machine wheels.
2. A trenching machine according to claim 1, wherein the second motor means drives at least two substantially coaxial frame wheels; and wherein the
  - 20 at least two substantially coaxial frame wheels are independently rotatable when disengaged from the second motor means, and are rotated in unison when engaged with the second motor means.
- 25 3. A trenching machine according to claim 1, including at least two at least substantially coaxial drive pulleys, and respective at least substantially coaxial driven pulleys, with a belt extending around each respective drive pulley and driven pulley combination.
- 30 4. A trenching machine according to claim 3, wherein the drive pulleys are connected to a common shaft, which is rotated by the second motor means, and the driven pulleys are connected to separately rotatable at least substantially coaxial shafts, which drive the respective at least two substantially coaxial frame wheels.

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5. A trenching machine according to claim 3, wherein the belts are adjustably tensioned via at least one adjustable tension pulley actuatable by a hand-operated lever.

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6. A trenching machine according to claim 1, wherein the first motor means and the second motor means are the same motor means.

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7. A trenching machine comprising:  
 a wheeled frame,  
 a first motor means on the frame,  
 the first motor means driving a digging chain carried on a chain guide extending from the machine,  
 the chain guide being pivotally mounted coaxially with a drive chain drive sprocket,  
 means for pivotally moving the chain guide relative to the frame,  
 locking means to lock the chain guide in a desired pivotal position, and  
 a second motor means on the frame,  
 the second motor means driving at least one of the machine wheels for moving the machine along the ground,  
 wherein the chain guide is releasably securable in a position relative to the drive chain sprocket enabling fitting and removal of the digging chain from the machine.

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8. A trenching machine according to claim 7, wherein the chain guide is longitudinally slidably mounted on a boom, such that the chain guide is slidable along the boom from a position where the digging chain is relatively taut about the drive sprocket and chain guide, to a position where the digging chain is relatively loosely fitted about the drive sprocket and chain guide.

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9. A trenching machine according to claim 8, wherein at least one aperture is provided in each of the chain guide and boom in relative positions such that the apertures are aligned for receiving a securing pin when the chain guide is moved longitudinally along the boom to a point where the digging chain

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is relatively loosely fitted about the drive sprocket and chain guide to enable fitting and removal of the digging chain.

5 10. A trenching machine according to claim 9, comprising a spring to bias the chain guide away from the drive sprocket to thereby tension the digging chain about the drive sprocket and chain guide.

10 11. A trenching machine according to claim 10, comprising a levering arm actuatable by a machine operator for moving the chain guide along the boom against the bias of the spring, to enable the chain guide to be releasably secured to the boom in a position enabling fitting and removal of the digging chain.

15 12. A trenching machine according to claim 7, wherein the first motor means and the second motor means are the same motor means.

20 13. A trenching machine comprising:  
 a wheeled frame,  
 a first motor means on the frame,  
 the first motor means driving a digging chain carried on a chain guide  
 extending from the machine,  
 the chain guide being pivotally mounted coaxially with a drive chain drive sprocket,  
 means for pivotally moving the chain guide relative to the frame,  
 25 locking means to lock the chain guide in a desired pivotal position, and  
 a second motor means on the frame,  
 the second motor means driving at least one of the machine wheels for moving the machine along the ground, wherein  
 the means for pivotally moving the chain guide relative to the frame  
 30 comprises  
 an actuating arm.

14. A trenching machine according to claim 13, wherein the actuating arm is pivotally connected between the frame and at least one of the chain guide and a boom upon which the chain guide is slidably mounted.

5 15. A trenching machine according to claim 13, wherein the actuating arm comprises a longitudinally movable screw threaded shaft, which meshes with a rotatably mounted helical or bevel gear.

10 16. A trenching machine according to claim 13, wherein the actuating arm comprises at least one of:  
a hydraulic ram; and  
screw threaded shaft and mating trunnion.

15 17. A trenching machine according to claim 15, comprising a motor means for rotating the helical or bevel gear to longitudinally move the screw threaded shaft.

18. A trenching machine according to claim 17, wherein the motor means for rotating the helical or bevel gear is an electric motor mounted on the frame.

20 19. A trenching machine according to claim 13, wherein the first motor means and the second motor means are the same motor means.

25 20. A trenching machine according to claim 13, wherein the actuating arm is capable of pivotally moving the chain guide relative to the frame to at least three positions, wherein the first position provides the digging chain in a digging position, with the distal end of the chain digging the ground below ground level, the second position provides the chain guide in a digging commencement position, such that the digging chain rests upon the surface of the ground, and  
30 the third position provides the chain guide in a non-digging position, wherein the digging chain is clear of the ground surface.

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